

## BOTTLE WITH SOFT FEEL HANDLE

### FIELD OF THE INVENTION

The present invention is directed to a bottle comprising a handle having a covering. More particularly, the invention is directed to a bottle comprising a handle having a soft feel label as a covering.

### BACKGROUND OF THE INVENTION

Bottles are widely used in the consumer goods industry for packaging various types of products, especially fluid products. Such bottles are normally made of relatively hard materials such as plastic, glass, or metal. Such bottles also commonly have a handle which provide the user with a convenient way to carry or handle the bottle for its intended use such as pouring. The handle is typically made of the same material as the bottle body and thus is also relatively hard. Also, the handle typically has a smooth finish as does the bottle typically. While these handles provide functionality for the consumer, they can be uncomfortable to the consumer when carrying or using the bottle. The smooth finish on the handle can also make it difficult for the user to maneuver the bottle to pour out the contents.

Bottle designers and manufactures have developed various bottle handle designs in an attempt to make the handle more comfortable for the consumer and provide the consumer with better maneuverability of the bottle during use. These various designs are evident by a quick look at the grocery store shelves. However, the designs have primarily focused on changing the shape of the handles to increase the user's comfort and maneuverability during use.

An object of the present invention is to provide a bottle having a handle that provides the consumer with greater comfort during lifting and ease of maneuverability during use.

Other objects of the present invention will become apparent to those skilled in the art by reference to the specification.

## SUMMARY OF THE INVENTION

In a first aspect, the present invention is directed to a bottle having a handle, wherein the handle has a covering which covers at least a portion of the handle.

In a second aspect, the present invention is directed to a bottle having a handle, wherein the handle has a covering which covers at least a portion of the handle and wherein the material covering the handle is comprised of a different composition than the bottle material.

In a third aspect, the present invention is directed to a bottle having a handle, wherein the handle has a covering which covers at least a portion of the handle and wherein the covering has an outer surface made of a soft feel material.

In a fourth aspect, the present invention is directed to a bottle having a base, a top part and sides, the bottle comprising a handle located on either a side or top part of the bottle, wherein the handle has a covering which covers at least a portion of the handle and wherein the covering has an outer surface made of a soft feel material.

The bottle of the present invention provides the consumer with a bottle with a handle that has a more luxurious feel and make it more enjoyable and easier for the consumer to use. Furthermore, the bottle will provide the marketer and retail outlet with a bottle that distinguished itself from other bottles and packaging on the store shelves.

By soft feel material it is meant the property of the outermost layer of the material has a Shore A or Shore D hardness (ASTM D 2240) of from at least 35,

preferably at least 40 to up to 80, more preferably up to 70 and even more preferably up to 60, and including all ranges subsumed therein.

All numerical ranges and percentages in this specification and claims are intended to be modified by the term about.

As used herein, the term “comprising” means that a specified material or element is present, optionally together a further material or element, and includes including, made up of, composed of, consisting and/or consisting essentially of.

For a more complete understanding of the above and other features and advantages of the invention, reference should be made to the following detailed description of preferred embodiments and to the accompanying drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a bottle of the invention with the handle on the side of the bottle, the handle having a cover in accordance with the invention.

FIG. 2 is a perspective view of a bottle of the invention with the handle on the top part of the bottle, the handle having a cover in accordance with the invention.

## DETAILED DESCRIPTION OF THE INVENTION

The invention relates to a bottle having a handle where the handle has a covering which covers at least a portion of the handle. Preferably, the covering is made of a soft feel material.

The term bottle hereby should be understood generally as a container for any form of product, especially fluid products, fluid products including liquids, as well as flowing materials such as powders or granules. The bottle of the invention is preferably a polymeric bottle, although other bottles such as glass, metallic, and paperboard may be used.

Preferred bottle materials with which this invention may be used include, but are not limited to: polypropylene (PP), polyethylene (PE), polycarbonate (PC), polyamides (PA) and/or polyethylene terephthalate (PETE), polyvinylchloride (PVC); and polystyrene (PS) including multilayer combinations thereof. The bottle walls may comprise one or more layers of a single material or a combination of various materials.

The bottle of the invention may be made by conventional techniques such as blow molding. The bottle may be of any form or size suitable for storing, packaging, or dispensing its contents for its intended use. While the bottle may be of any size, it is preferable that the bottle has a capacity of 0.05 to 15 L, more preferably, 0.1 to 5 L, and even more preferably from 0.2 to 2.5 L.

The bottle has a base. By a base it should be understood a part of the bottle on which the bottle is left to stand up-right. This part may be flat, or may for example be formed from a moulded tripod, or from a flat ring. Many types of bases are known in the art, the main feature of such a base being to hold the bottle in a stable position on a flat supporting surface.

The bottle further comprises a top part. The top part is typically the part of the bottle opposed to the base. The top is commonly the part of the bottle which provides an exit for the content of the bottle.

The bottle also comprises sides. The sides are the surfaces which generally speaking are joining the top part and the base of the bottle. Typically, when the bottle

is upright, the sides are substantially vertical and perpendicular to the base. The sides may also have a curved or relatively complex shape depending on the bottle considered. The sides are, in some instances, the part of the bottle which provides an exit for the content of the bottle.

The bottle also comprises a handle located on either a side of the bottle or on the top part. The handle according to the invention is normally forming a recess, the recess being such that a user may slide a hand in the recess to hold the bottle by the handle.

In accordance with the invention, a covering is on at least a portion of the handle. The covering can be one or more labels which are applied by conventional techniques. Preferably the covering is applied on the handle by in-mold labeling (IML). Other techniques which may be used include, without limitation, pressure-sensitive or stretch or shrink-on labeling or other known techniques. Preferably, the handle is covered by two labels, one applied on the front portion of the handle and the second applied on the back portion of the handle. The two labels are preferably sufficiently large such that when they are wrapped around the surface of the bottle handle they will overlap thereby covering the complete surface area of the handle. Preferably the handle covering is applied at the same time other labeling is applied to the bottle.

The covering could also be a paint product that is applied to the handle by convention paint application techniques. Examples of suitable paints that provide a soft feel effect include paints with Orgasol additive which is commercially available from Atofina. Other suitable commercially available paints include Lanco PP1362D, PP1362SF, 1382LF, 1400SF, CP1481F, CP1481SF, PE1544F, A1601, A1602, D2S, HM1666, SM2003, Glidd 2312, Glidd 5118, Glidd 5575, Glidd 5618, LiquiMatt 5730, and LiquiMatt 6375 all commercially available from Lubrizol. E.I. Du Pont De Nemours & Co. also offers soft touch coatings/paint commercially available under the names VelvaShield and Aqua~DekoSoft.

The covering can also include a coating that is applied by conventional coating techniques. For example, a lacquer such as Silk Touch Lacquer 43829 commercially available from SIPCA North America may be used. These coating may be applied to the bottle handle directly, however they are preferably applied to a label to be applied to the bottle handle. The coatings may be applied by conventional coating techniques including, without limitation, gravure printing press, screen printing, Thermage printing, and offset flexography.

The base layer of a label may be made of any suitable polymeric material, e.g., polypropylene, polyethylene (HDPE, MDPE, LDPE, LLDPE), polypropylene (PP, OPP), blends of PP and PE, polyvinyl chloride (PVC), polyethylene terephthalate (EPET, PETG, OPET) and polystyrene (PS, HIPS). Polypropylene and polyethylene are preferred for use with in-mold labels.

Preferably the covering on the bottle handle is a soft feel material or is a label coated with a soft feel material. Soft feel materials include without limitation, for example, cataloy polyolefins, thermoplastic olefin resins, thermoplastic elastomers or silk touch type lacquers such as 43829 Silk Touch Lacquer commercially available from SIPCA North America. Such soft feel materials are disclosed, for instance, in U.S. Patent Nos. 6,503,619; 5,733,617; 5,250,343, 5,677,055; 5,585,193; 5,594,070; 5,151,309; 5,968,431, U.S. Patent Application Publication No. 2002/0155283 A1, and EP 0 667 234 A1, the disclosures all of which are incorporated herein by reference. Soft feel materials are commercially available from numerous suppliers including, Basell Polyolefins Company N.V., Bayer, Advanced Elastomer Systems, Monsanto Company, Multi-Color Corporation, and Kraton. A preferred soft feel material is Adflex Q 302 B from Basell Polyolefins Company N.V.

The covering on the bottle handle may cover from e.g., 20% to 100% of the surface of the bottle handle. Preferably the label covers at least 30% of the surface of the bottle handle. More preferably, the covering covers at least 50% of the surface of

the bottle handle, more preferably at least 65%, and even more preferably at least 80%, and most preferably 100% of the surface of the bottle handle, and including all ranges subsumed therein.

The covering may have any thickness. The label thickness for an IML (in-mold label) usually ranges from 2 to 12 mils, but could be thinner for stretch and shrink-on labels. More preferably, the covering/label thickness ranges from 2 to 8 mils.

Preferably, at least a portion of the label covering the surface of the bottle handle will include indicia such as product information. The label may also be a different color than the bottle.

Referring to the drawings, Figure 1 shows a bottle in accordance with the present invention wherein the bottle handle is on the side of the bottle. Figure 2 shows a bottle in accordance with the present invention wherein the bottle handle is on the top part of the bottle. The bottle 2 in each embodiment has a base 4, a top part 6, and sides 8. In Figure 1, the bottle 2 has a handle 10 on its side 8. In Figure 2, the bottle 2 has a handle 10 on its top part 6. In each embodiment, the handle 10 has a covering 12 which covers at least a portion of the handle 10.

The cover on the handle may cover only certain parts of the handle, purposely leaving other parts bare in order to provide a benefit to the user, such as a better grip or a more comfortable grip of the handle. For instance, in Figure 1 the handle is covered in some parts 14 and purposely left bare in other parts 16.

The bottle of the present invention may have any type of contents that are stored in bottles, including home and personal care products and food products. A preferred product for such bottles are liquid laundry detergent and liquid fabric treatment compositions such as fabric softeners.

It should be understood of course that the specific forms of the invention herein illustrated and described are intended to be representative only as certain changes may be made therein without departing from the clear teachings of the disclosure. Accordingly, reference should be made to the following appended claims in determining the full scope of the invention.